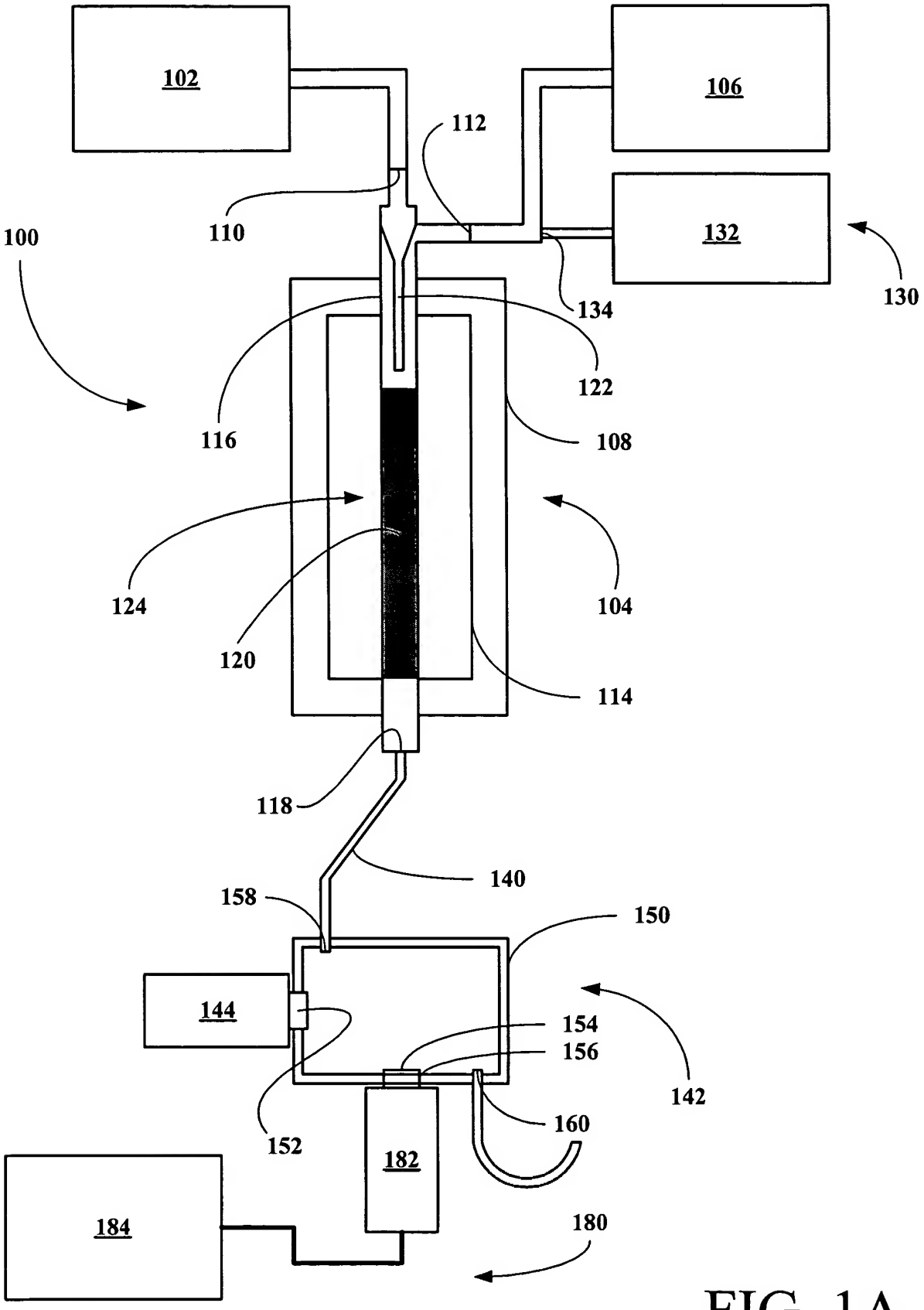
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FIG. 1A

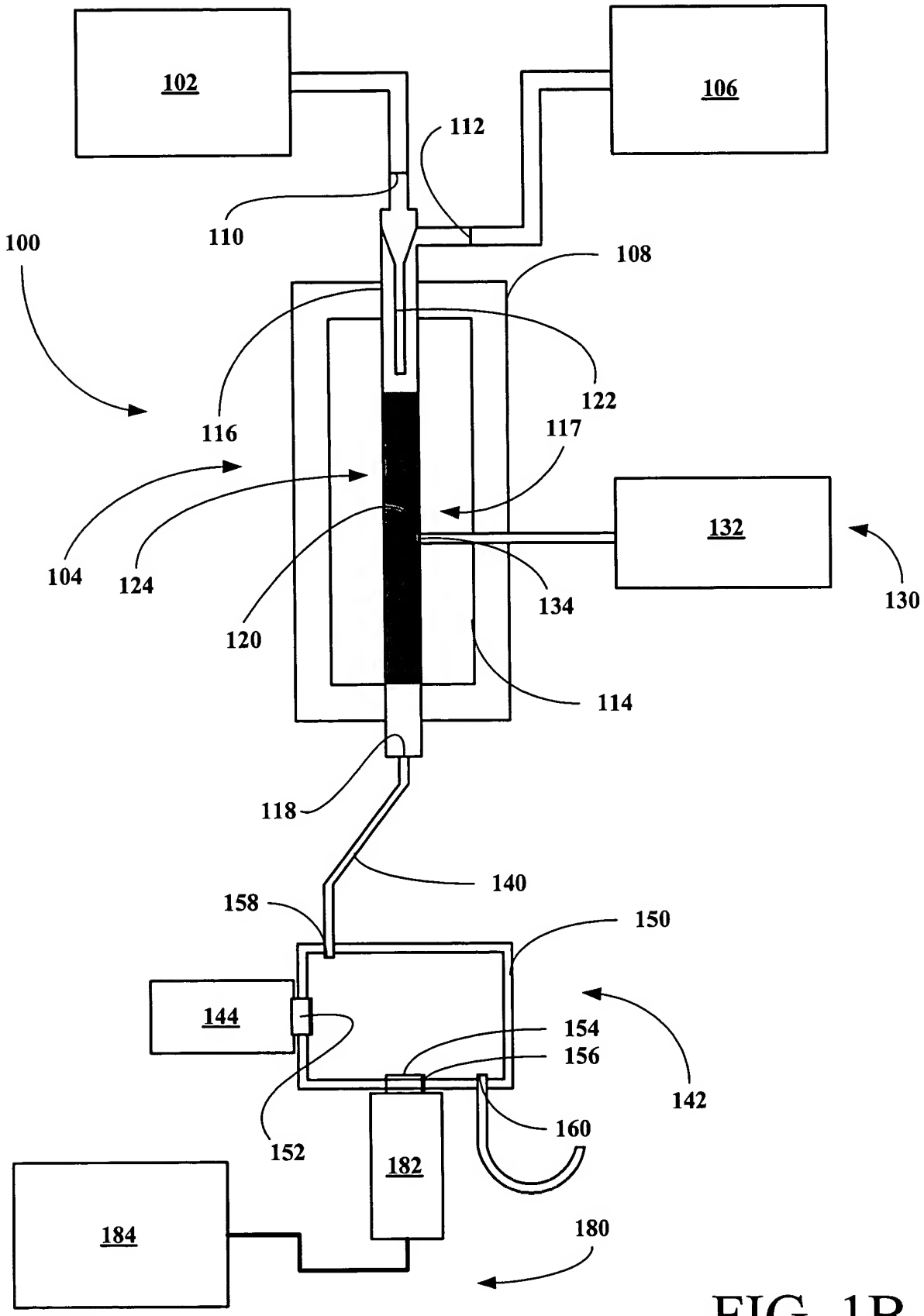
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FIG. 1B

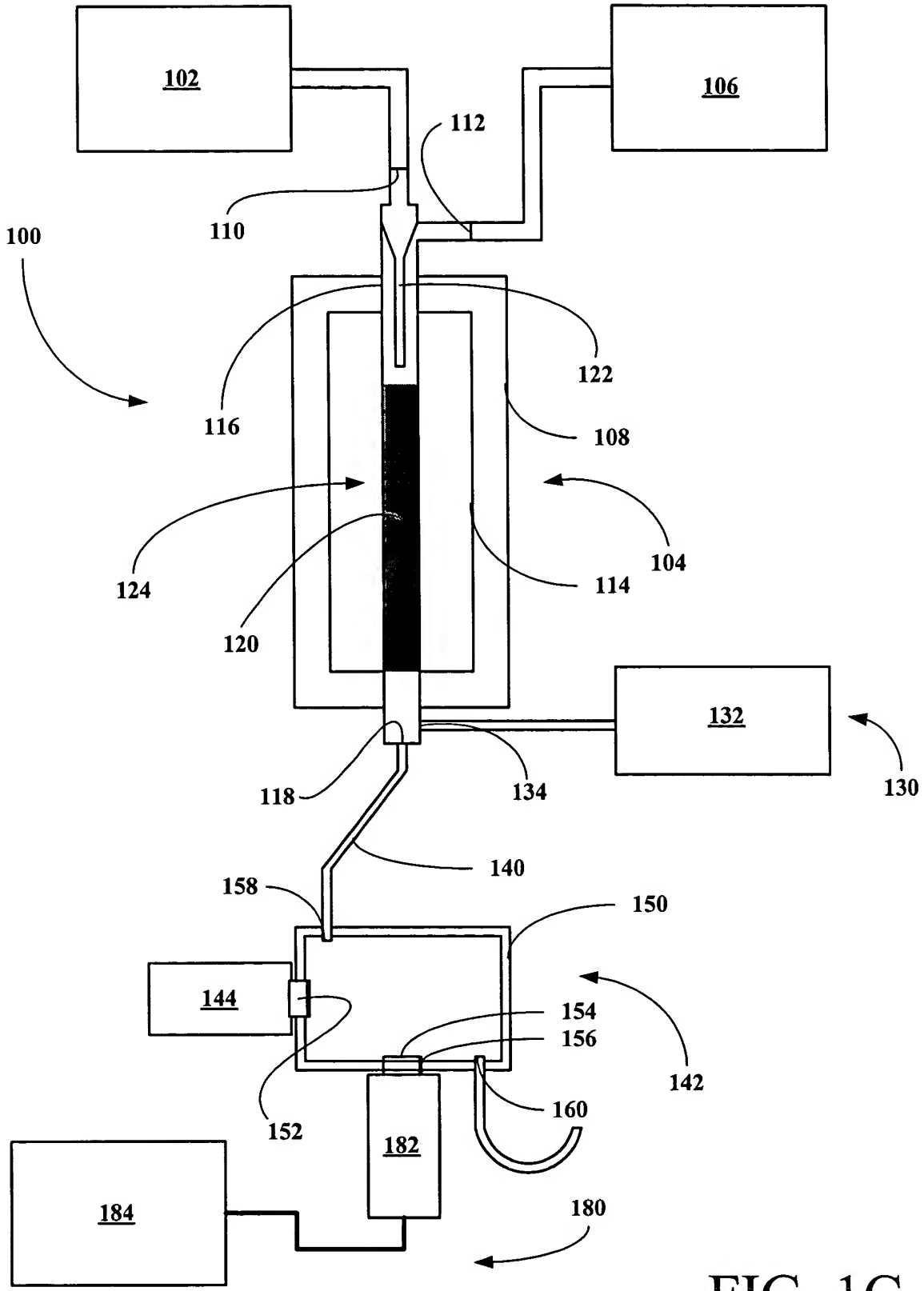
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FIG. 1C

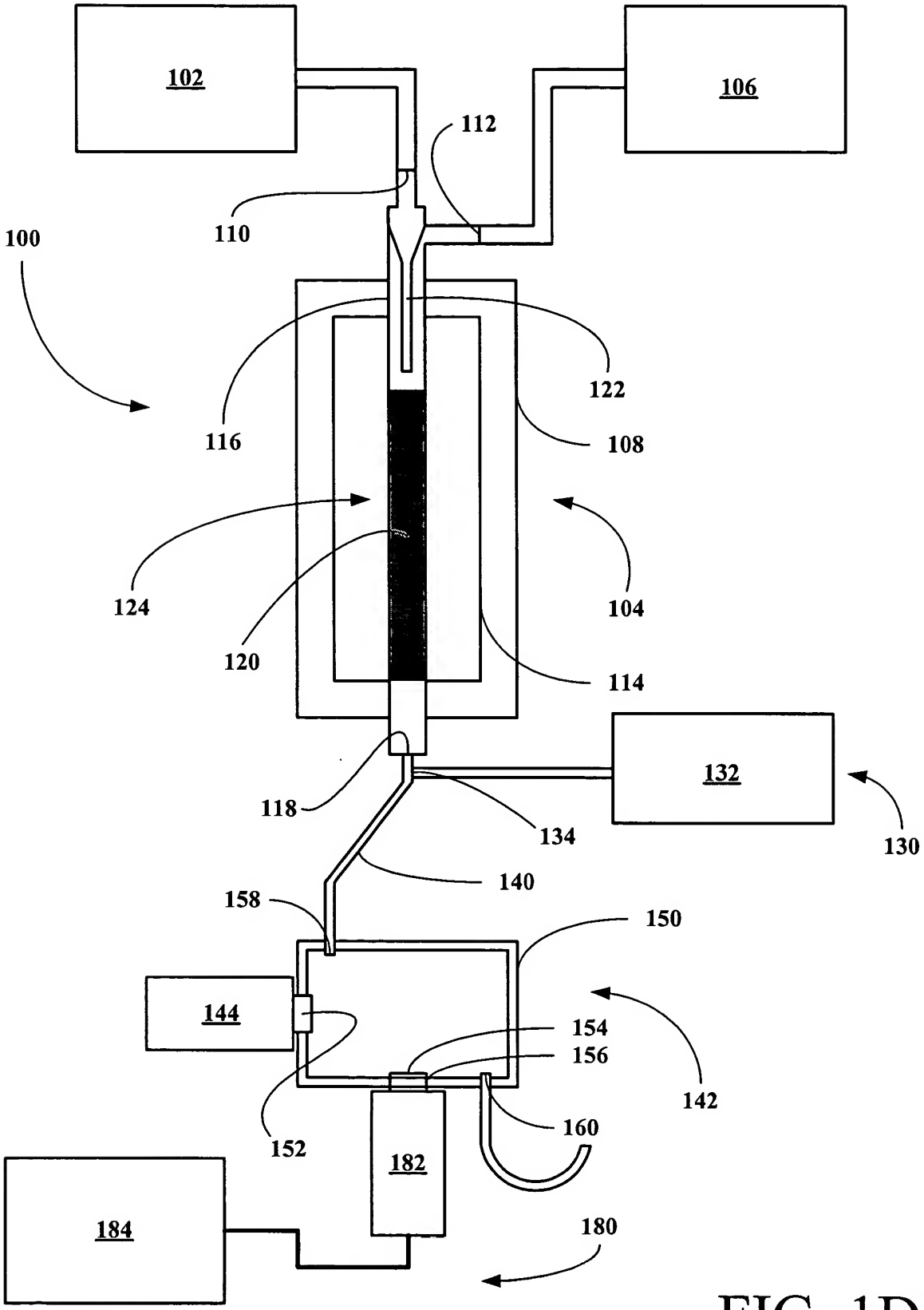
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FIG. 1D

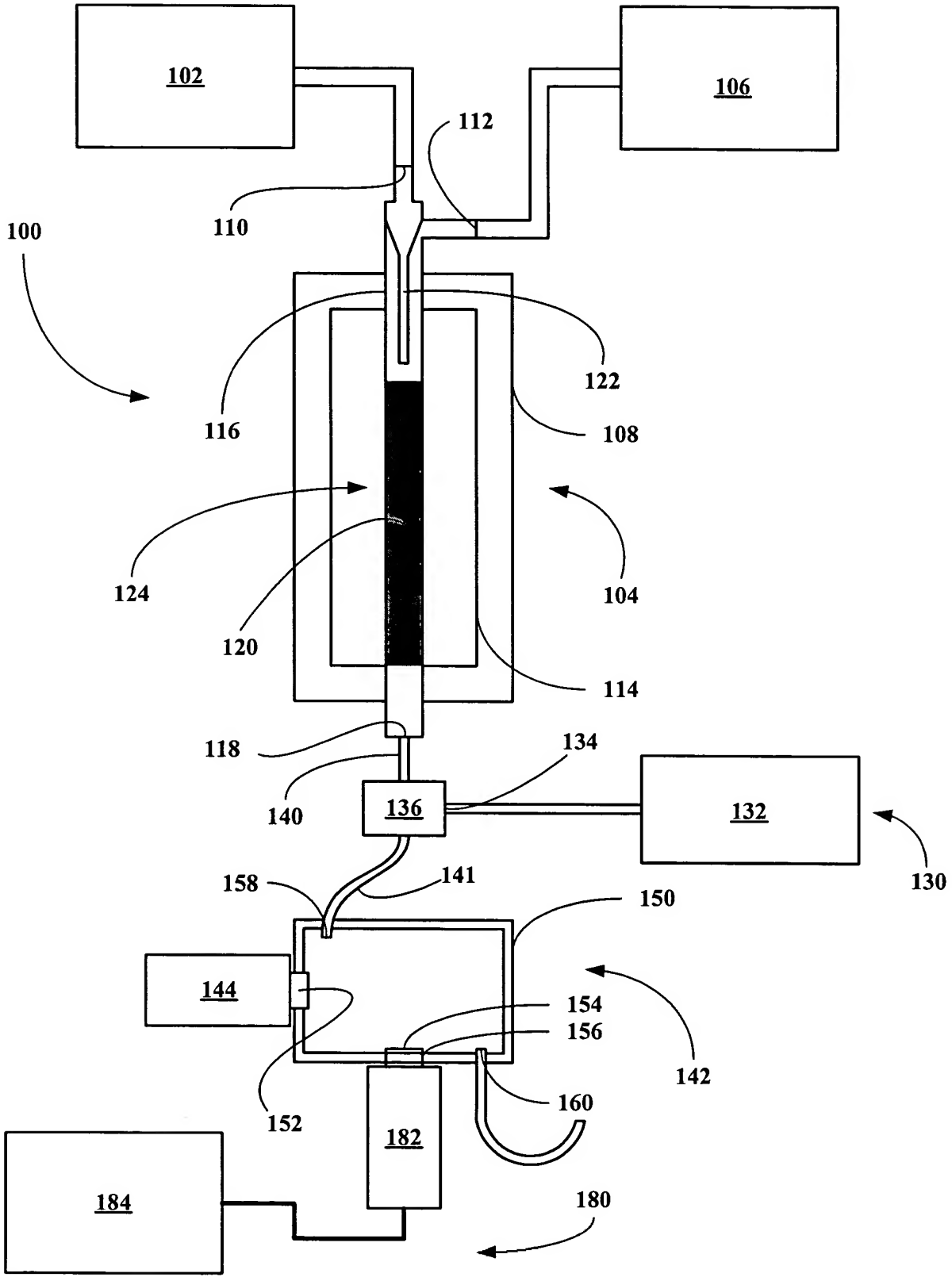
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FIG. 1E

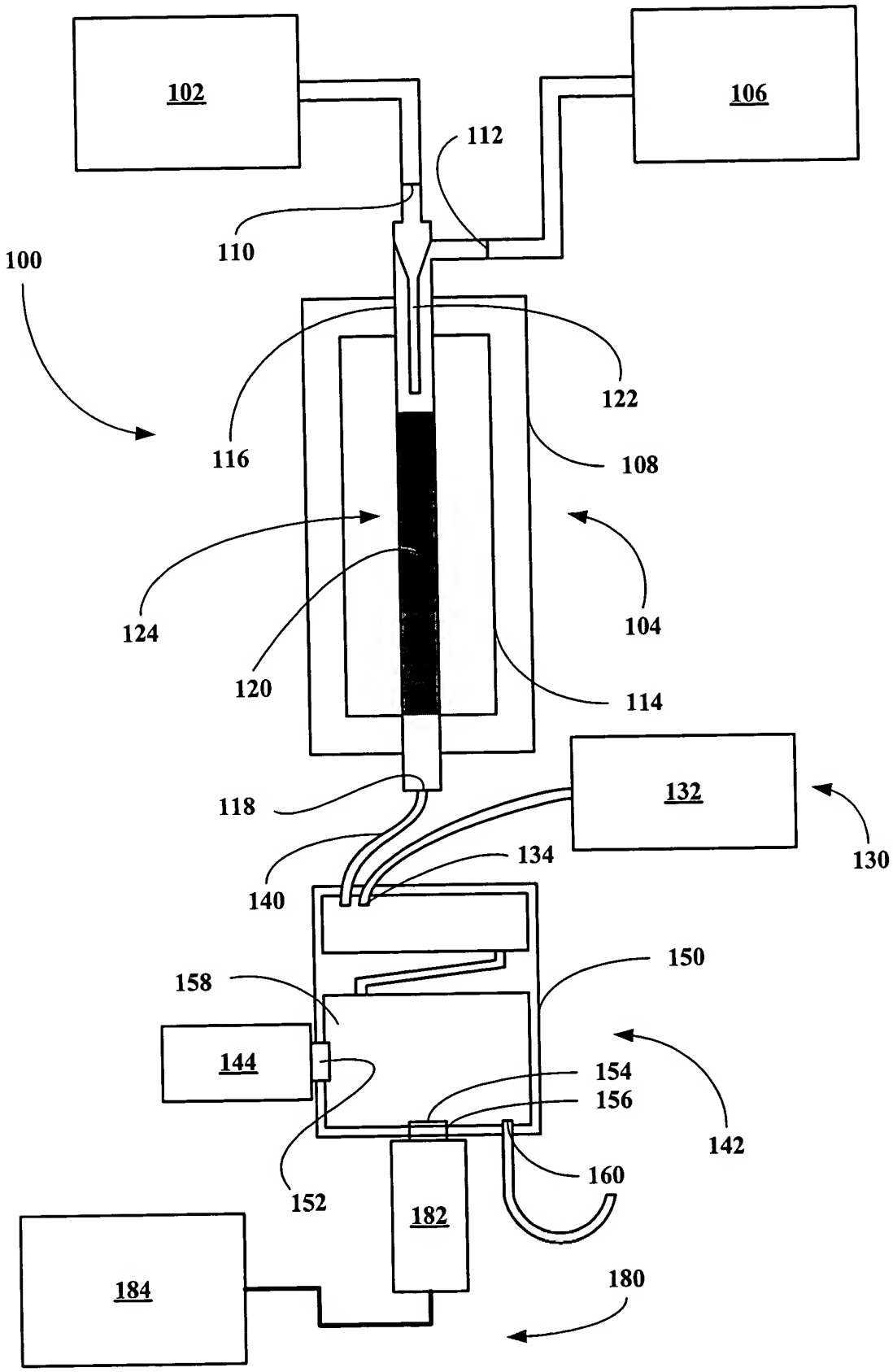
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FIG. 1F

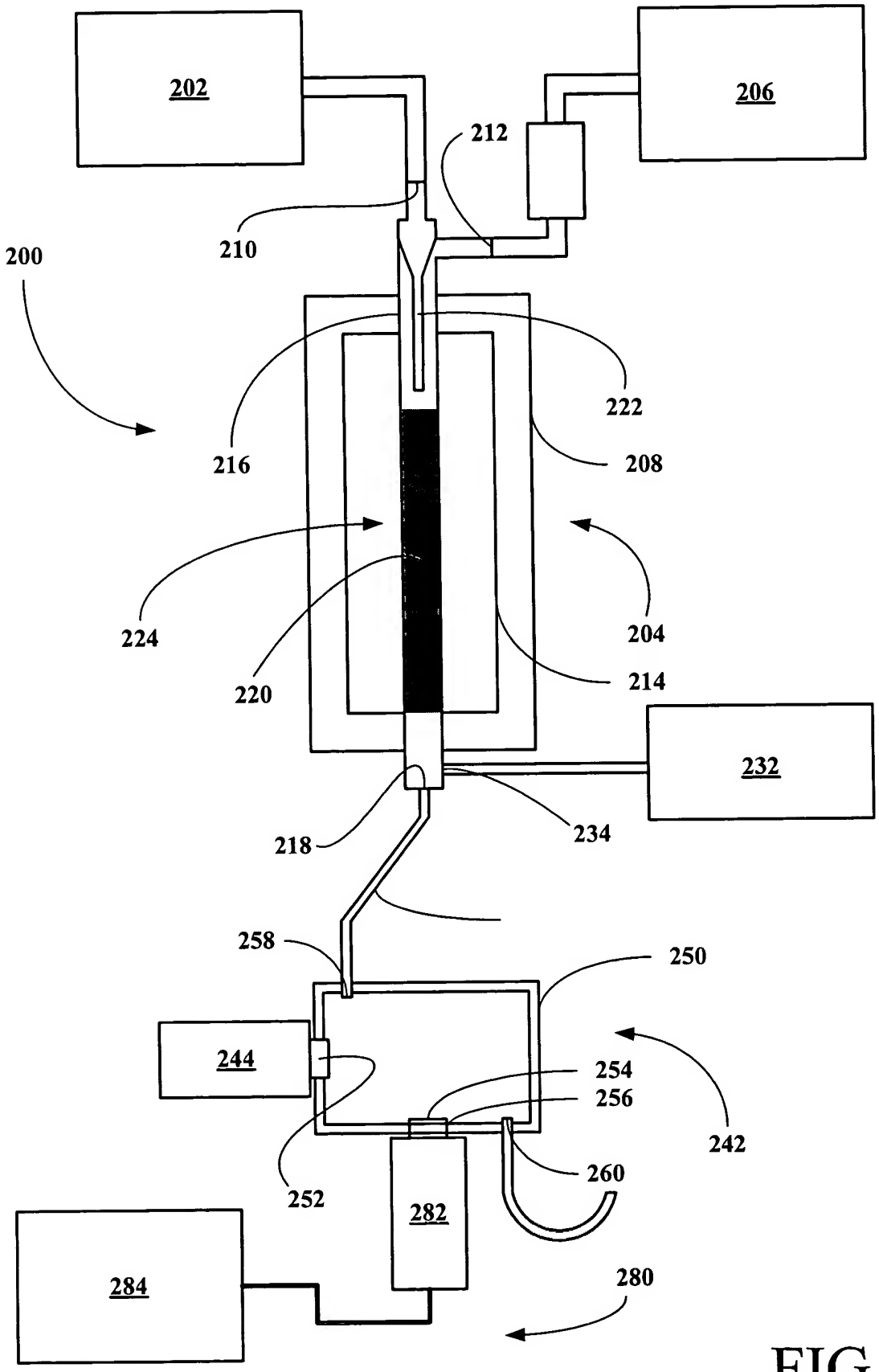
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FIG. 2

Alcohol "Blanks" vs. Response or "Background" Counts

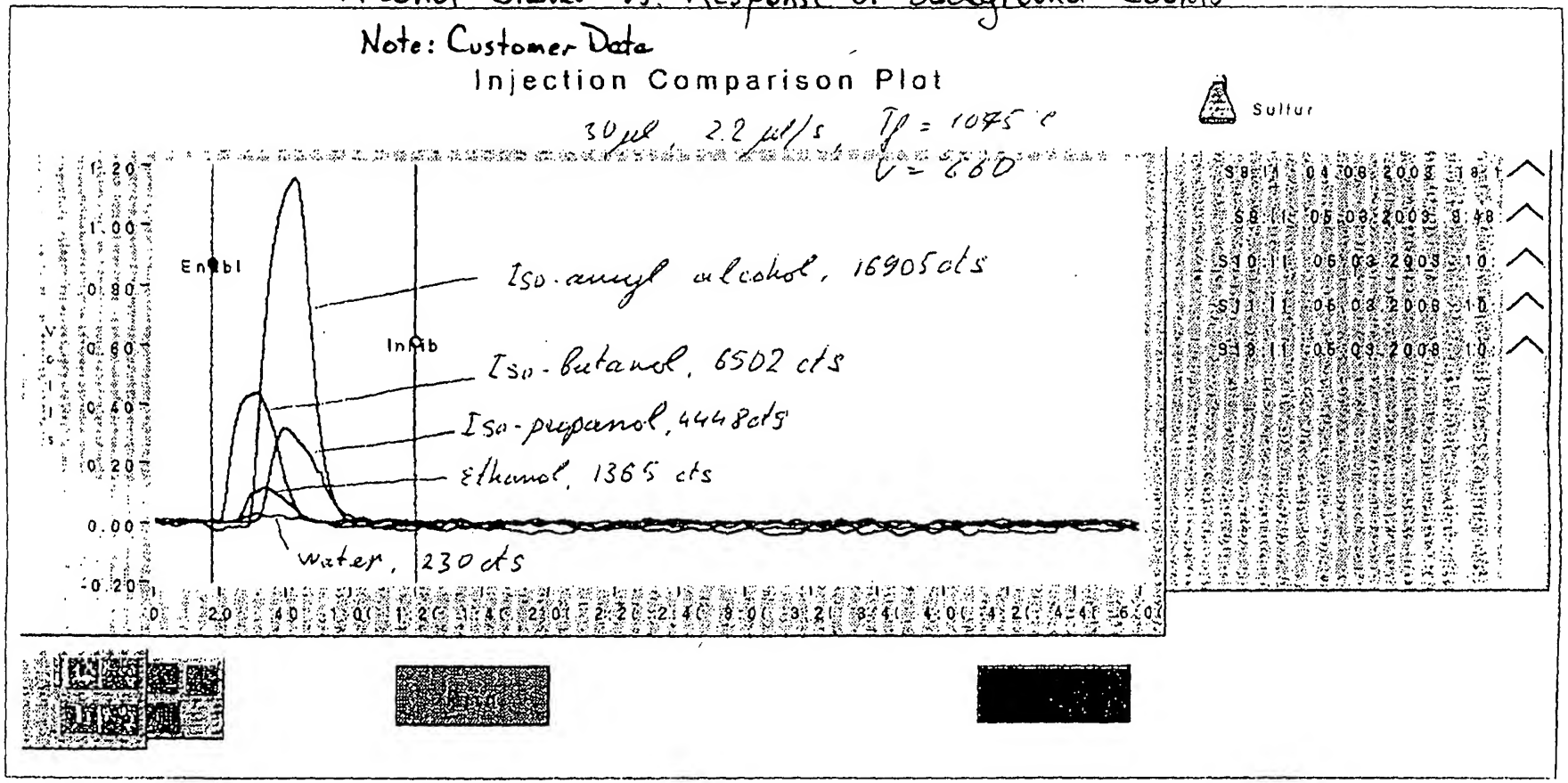


FIG. 3

9/16

File Name: Soctrade.sam
Curr. Cal. File: As2551.cal
Orig. Cal. File: As2551.cal
Calibration based on: Total Counts
Blank Correction Is: OFF

Comments: Test UV Fluorescence Detector for Soctrade

Version: 3.7.7 6/28/02

Name		Use S	SConc	SCnts	S%RSD	Divider	Multiplier	Time	Date	OpID	Tray #	Vial Pos
											1	1
1ppm/i-C8		X	0.629	23742.3	1.19							
1ppm/i-C8.1		X	0.627	23690.0		1.00	1.00	2:13 PM	3/11/03	LJN		
1ppm/i-C8.2		X	0.645	24202.4		1.00	1.00	2:19 PM	3/11/03	LJN		
1ppm/i-C8.3		X	0.618	23430.0		1.00	1.00	2:25 PM	3/11/03	LJN		
1ppm/i-C8.4		X	0.628	23729.2		1.00	1.00	2:31 PM	3/11/03	LJN		
1ppm/i-C8.5		X	0.626	23660.1		1.00	1.00	2:37 PM	3/11/03	LJN		
											1	1
Blank/i-C8		X	-0.151	1465.7	15.40							
Blank/i-C8 .1		X	-0.148	1561.1		1.00	1.00	2:44 PM	3/11/03	LJN		
Blank/i-C8 .2		X	-0.150	1512.4		1.00	1.00	2:50 PM	3/11/03	LJN		
Blank/i-C8 .3		X	-0.141	1768.8		1.00	1.00	2:56 PM	3/11/03	LJN		
Blank/i-C8 .4		X	-0.160	1214.1		1.00	1.00	3:02 PM	3/11/03	LJN		
Blank/i-C8 .5		X	-0.158	1272.2		1.00	1.00	3:08 PM	3/11/03	LJN		
500ppmN-DI		X	0.744	27020.0	NA	1.00	1.00	3:16 PM	3/11/03	LJN	1	1
i-C3OH		X	-0.173	852.5	NA	1.00	1.00	3:39 PM	3/11/03	LJN	1	1
Toluene		X	-0.120	2359.6	NA	1.00	1.00	4:15 PM	3/11/03	LJN	1	1
MeOH		X	-0.190	350.5	NA	1.00	1.00	4:48 PM	3/11/03	LJN	1	1

FIG. 4

Blank i-C_8 Samples vs. N_2 Added to Injector Gas Flow

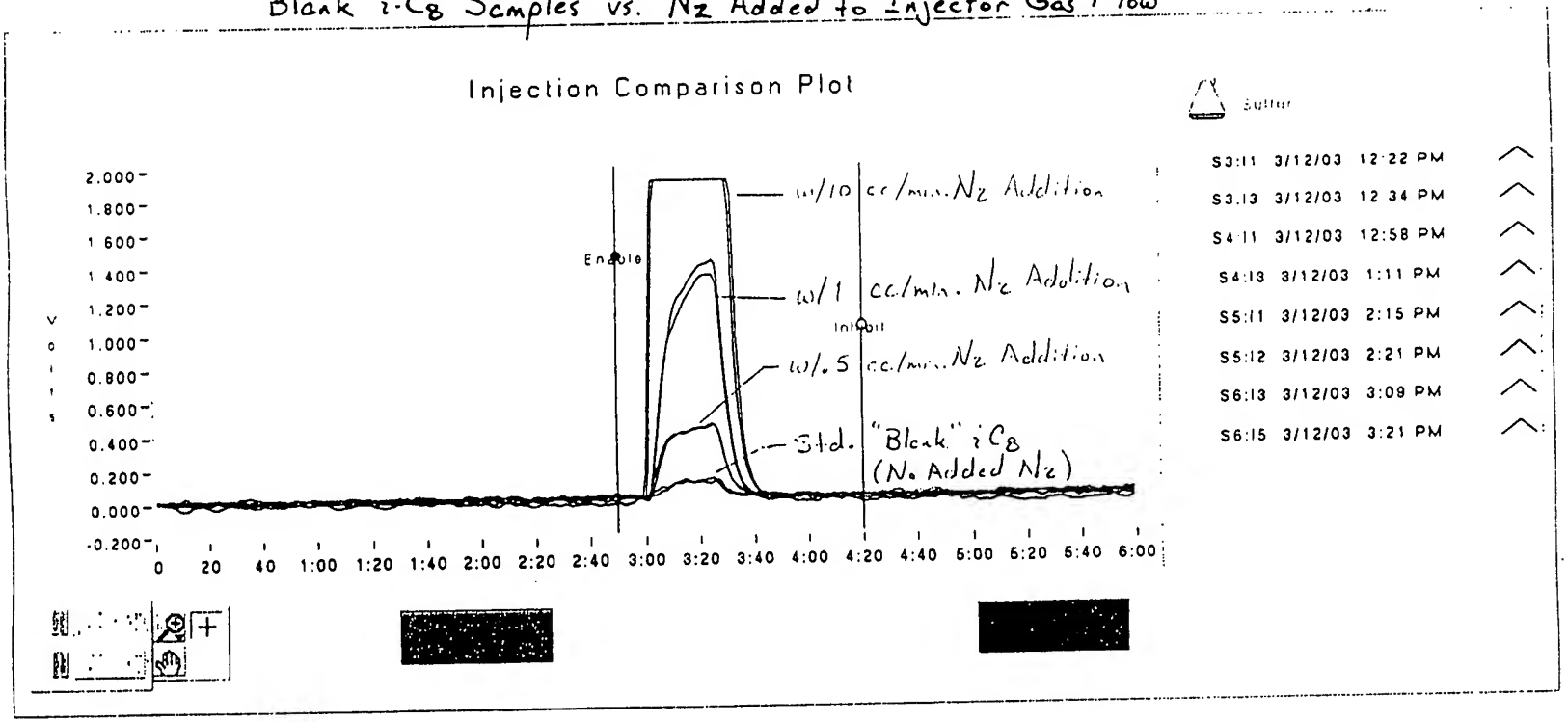
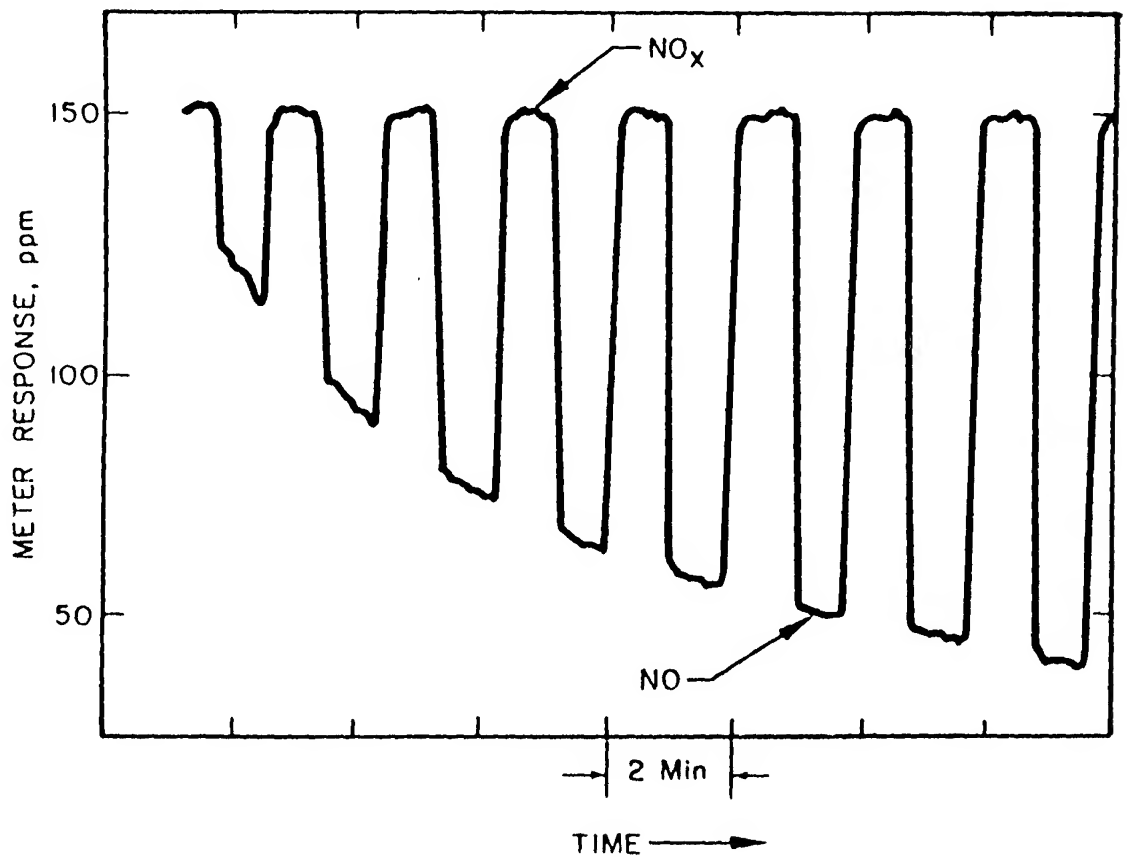


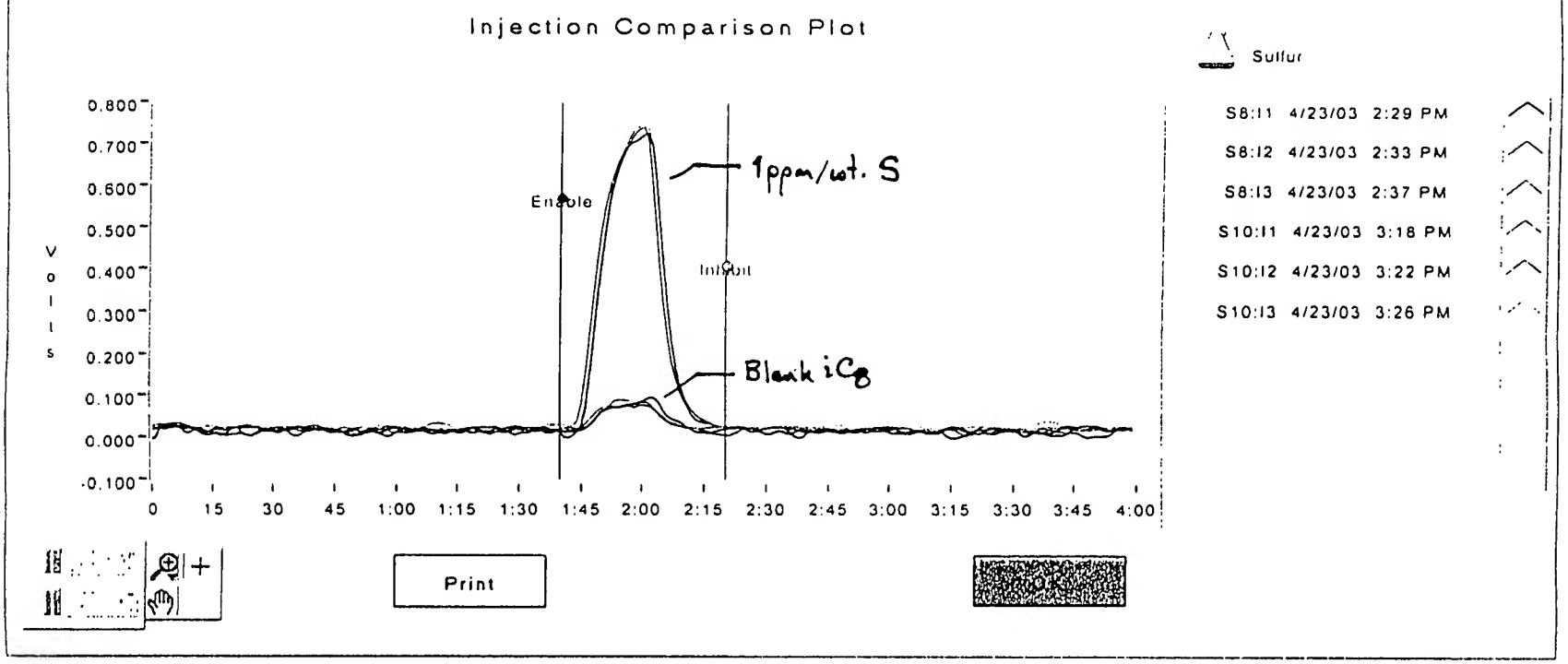
FIG. 5



Test of NO_2 converter efficiency. Monitor operated alternately in the NO_x and NO modes. The NO_x response remains constant with time, while that for NO decreases with time. From AeroChem.[39]

FIG. 6

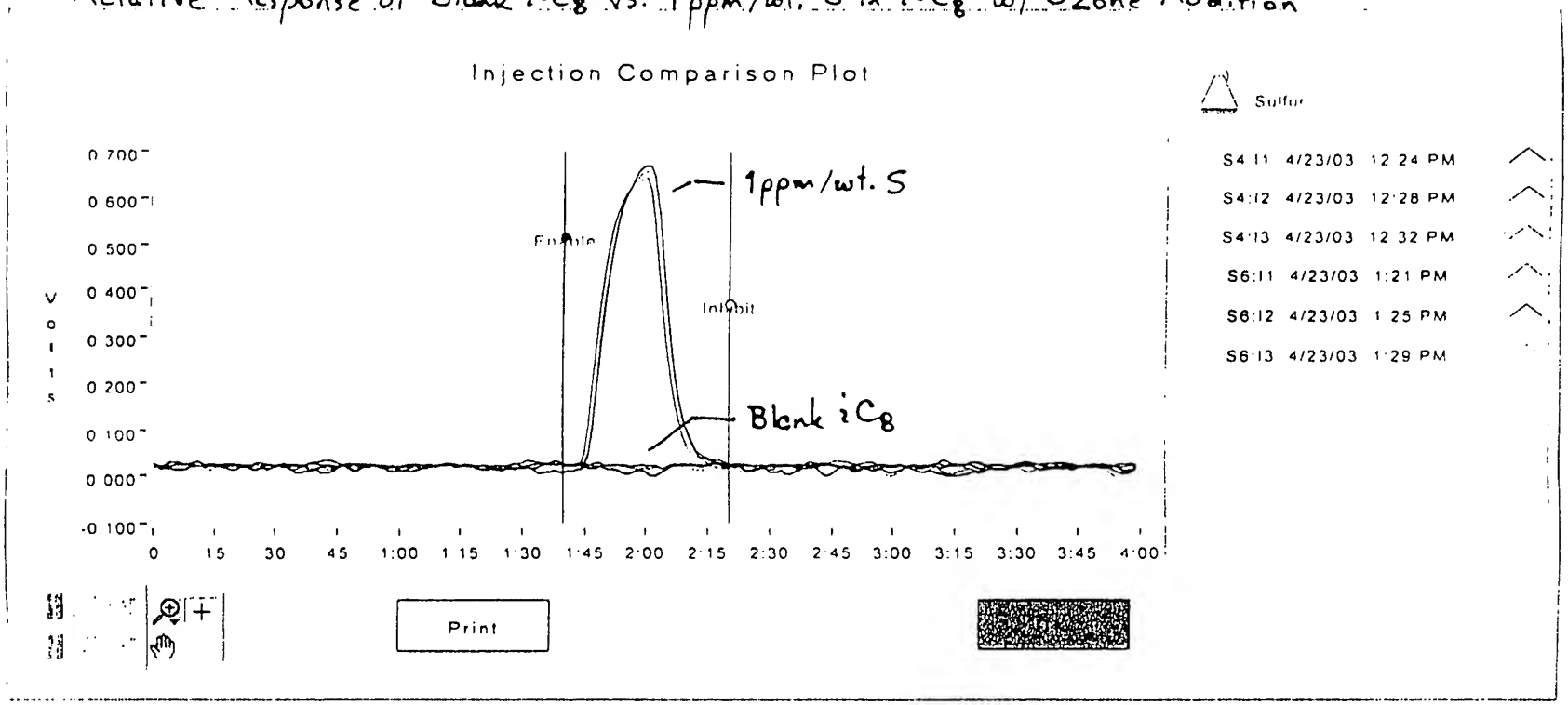
Relative Response of "Blank" i-C_8 vs. 1ppm/wt. S in iC_8 w/Present UV Fluorescence Configuration



Sample Size: 80 µl
Injection Rate: 5 µl/sec.
Combustion Tube: Single Pass
Combustion Gas Flows: MFC 2; O_2 @ 50cc/min
MFC 3; O_2 @ 425cc/min.
PMT Voltage: -700vdc
Gain: High x 25

FIG. 7A

Relative Response of "Blank" i-C_8 vs. 1 ppm/wt. S in i-C_8 w/ Ozone Addition



Analytical Conditions
Same as Figure 5a
(+) Ozone Addition @ Fluorescence Cell Inlet

FIG. 7B

File Name: O3 addition.sam
Curr. Cal. File: Interference.cal
Orig. Cal. File: Interference.cal
Calibration based on: Total Counts
Blank Correction is: OFF

Comments: All Ozone (O3) Addition = 1cc/min O2 with ATOMIC Prototype
(Hv Transformer Primary @7vdc)
All 50ppbS standards in Fisher i-C8

Version: 3.7.7 6/28/02

Name		Use S	SConc	SCnts	SSDev	S%RSD			Divider	Multiplier	Time	Date
Reidel +O3		X	NaN	16.6	15.77	95.12						
Reidel+O3.1		X	Inf	37.6					1.00	1.00	11:08 AM	4/23/03
Reidel+O3.2		X	Inf	12.2					1.00	1.00	11:12 AM	4/23/03
Reidel+O3.3		X	Inf	28.1					1.00	1.00	11:16 AM	4/23/03
Reidel+O3.4		X	-Inf	0.9					1.00	1.00	11:20 AM	4/23/03
Reidel+O3.5		X	-Inf	4.2					1.00	1.00	11:24 AM	4/23/03
50ppb+O3		X	Inf	355.9	81.09	22.79						
50ppb+O3.1		X	Inf	429.9					1.00	1.00	11:29 AM	4/23/03
50ppb+O3.2		X	Inf	442.9					1.00	1.00	11:33 AM	4/23/03
50ppb+O3.3		X	Inf	287.1					1.00	1.00	11:37 AM	4/23/03
50ppb+O3.4		X	Inf	263.5					1.00	1.00	11:41 AM	4/23/03
50ppb+O3.5		X	Inf	355.9					1.00	1.00	11:45 AM	4/23/03
Reidel+O3		X	NaN	5.6	5.49	97.56						
Reidel+O3.1		X	-Inf	0.0					1.00	1.00	12:03 PM	4/23/03
Reidel+O3.2		X	-Inf	6.4					1.00	1.00	12:07 PM	4/23/03
Reidel+O3.3		X	-Inf	5.1					1.00	1.00	12:11 PM	4/23/03
Reidel+O3.4		X	-Inf	2.2					1.00	1.00	12:15 PM	4/23/03
Reidel+O3.5		X	Inf	14.4					1.00	1.00	12:19 PM	4/23/03
Fisher+O3		X	NaN	18.3	15.49	84.65						
Fisher+O3.1		X	Inf	28.6					1.00	1.00	12:24 PM	4/23/03
Fisher+O3.2		X	-Inf	4.3					1.00	1.00	12:28 PM	4/23/03

FIG. 8A

Name		Use S	SConc	SCnts	SSDev	S%RSD			Divider	Multiplier	Time	Date
Fisher+O3.3		X	-Inf	0.0					1.00	1.00	12:32 PM	4/23/03
Fisher+O3.4		X	Inf	35.6					1.00	1.00	12:36 PM	4/23/03
Fisher+O3.5		X	Inf	23.0					1.00	1.00	12:40 PM	4/23/03
50ppb+O3		X	Inf	352.9	46.42	13.16						
50ppb+O3.1		X	Inf	313.8					1.00	1.00	12:45 PM	4/23/03
50ppb+O3.2		X	Inf	317.1					1.00	1.00	12:49 PM	4/23/03
50ppb+O3.3		X	Inf	337.3					1.00	1.00	12:53 PM	4/23/03
50ppb+O3.4		X	Inf	370.6					1.00	1.00	12:57 PM	4/23/03
50ppb+O3.5		X	Inf	425.4					1.00	1.00	1:01 PM	4/23/03
1ppm+O3		X	Inf	9816.3	118.67	1.21						
1ppm+O3.1		X	Inf	9657.6					1.00	1.00	1:21 PM	4/23/03
1ppm+O3.2		X	Inf	9871.8					1.00	1.00	1:25 PM	4/23/03
1ppm+O3.3		X	Inf	9761.8					1.00	1.00	1:29 PM	4/23/03
1ppm+O3.4		X	Inf	9815.8					1.00	1.00	1:33 PM	4/23/03
1ppm+O3.5		X	Inf	9974.7					1.00	1.00	1:37 PM	4/23/03
50ppb+O3		X	Inf	332.7	71.52	21.50						
50ppb+O3.1		X	Inf	245.3					1.00	1.00	1:43 PM	4/23/03
50ppb+O3.2		X	Inf	363.7					1.00	1.00	1:47 PM	4/23/03
50ppb+O3.3		X	Inf	270.8					1.00	1.00	1:51 PM	4/23/03
50ppb+O3.4		X	Inf	414.5					1.00	1.00	1:55 PM	4/23/03
50ppb+O3.5		X	Inf	369.2					1.00	1.00	1:59 PM	4/23/03
F-Nozone		X	Inf	963.5	48.85	5.07						
F-Nozone.1		X	Inf	960.1					1.00	1.00	2:29 PM	4/23/03
F-Nozone.2		X	Inf	919.6					1.00	1.00	2:33 PM	4/23/03
F-Nozone.3		X	Inf	917.3					1.00	1.00	2:37 PM	4/23/03
F-Nozone.4		X	Inf	1033.7					1.00	1.00	2:41 PM	4/23/03
F-Nozone.5		X	Inf	986.9					1.00	1.00	2:45 PM	4/23/03
50ppb Nozone		X	Inf	1212.0	127.80	10.54						
50ppb Nozone.1		X	Inf	1133.6					1.00	1.00	2:57 PM	4/23/03
50ppb Nozone.2		X	Inf	1378.7					1.00	1.00	3:01 PM	4/23/03

FIG. 8B

Name		Use S	SConc	SCnts	SSDev	S%RSD			Divider	Multiplier	Time	Date
50ppb Nozone.3		X	Inf	1321.0					1.00	1.00	3:05 PM	4/23/03
50ppb Nozone.4		X	Inf	1107.7					1.00	1.00	3:09 PM	4/23/03
50ppb Nozone.5		X	Inf	1119.1					1.00	1.00	3:13 PM	4/23/03
1ppm-Nozone		X	Inf	11311.0	83.00	0.73						
1ppm-Nozone.1		X	Inf	11206.8					1.00	1.00	3:18 PM	4/23/03
1ppm-Nozone.2		X	Inf	11383.2					1.00	1.00	3:22 PM	4/23/03
1ppm-Nozone.3		X	Inf	11306.4					1.00	1.00	3:26 PM	4/23/03
1ppm-Nozone.4		X	Inf	11260.6					1.00	1.00	3:30 PM	4/23/03
1ppm-Nozone.5		X	Inf	11417.8					1.00	1.00	3:34 PM	4/23/03

FIG. 8C